IN THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Canceled).

Claim 21 (Previously Presented): A magnetic circuit according to claim 38, wherein said magnetic layer is a single-layer magnetic layer.

Claim 22 (Previously Presented): A magnetic circuit according to claim 38, wherein said magnetic layer is formed by a stack of alternating magnetic and insulating layers.

Claim 23 (Previously Presented): A magnetic circuit according to claim 38, wherein said walls are evenly-spaced.

Claim 24 (Canceled).

Claim 25 (Previously Presented): A magnetic circuit according to claim 39, wherein said magnetic layer is a single-layer magnetic layer.

Claim 26 (Currently Amended): A magnetic circuit according to claim [[25]] 39, wherein said magnetic layer is formed by a stack of alternatively magnetic and insulating layers.

Claim 27 (Previously Presented): A magnetic circuit according to claim 39, wherein said gaps are evenly-spaced.

Claim 28 (Canceled).

Claim 29 (Currently Amended): A magnetic head comprising:

a bent magnetic circuit forming an air gap, said bent magnetic circuit coupled to a conductive winding; and

a plurality of gaps disposed within the bent magnetic circuit at positions perpendicular to a median line of the bent magnetic circuit generating a demagnetizing field in the bent magnetic circuit at the positions of the plurality of gaps,

wherein the plurality of gaps have a width and are spaced at a pitch to extend a frequency of operation of the magnetic head up to a resonant frequency.

Claims 30-37 (Canceled).

Claim 38 (Currently Amended): A magnetic circuit comprising:

a magnetic layer having a median line and disposed with respect to an induced magnetic field so as to canalize, in the direction of the median line, said magnetic field,

the magnetic layer being composed of a series of portions, two successive portions being separated from each other by a wall of insulating material disposed at a position perpendicular to the median line of the magnetic layer and generating a demagnetizing field in the magnetic layer at the position of said wall,

wherein each wall of insulating material has a width and is spaced at a pitch to extend a frequency of operation of the magnetic circuit up to a resonant frequency.

Claim 39 (Currently Amended): A magnetic circuit comprising:

a magnetic layer having a median line and disposed with respect to an induced magnetic field so as to canalize, in the direction of the median line, said magnetic field,

the magnetic layer being composed of a series of portions, two successive portions being separated from each other by a gap disposed at a position perpendicular to the median line of the magnetic layer and generating a demagnetizing field in the magnetic layer at the position of said gap,

wherein each said gap has a width and is spaced at a pitch to extend a frequency of operation of the magnetic circuit up to a resonant frequency.

Claim 40 (Currently Amended): A magnetic circuit comprising:

a magnetic toroid having a median line and disposed with respect to an induced magnetic field so as to canalize, in the direction of the median line, said magnetic field,

the magnetic toroid being composed of a series of portions, two successive portions being separated from each other by a radial gap disposed at a position perpendicular to the median line of the magnetic toroid and generating a demagnetizing field in the magnetic toroid at the position of said radial gap,

wherein each radial gap has a width and is spaced at a pitch to extend a frequency of operation of the magnetic circuit up to a resonant frequency.

Claim 41 (New): A magnetic circuit according to claim 29, wherein the resonant frequency $f_r$ is given by relationship:

$$f_r = \sqrt{C\left(1/\mu_s + e/p\right)}$$

in which C is a constant, $\mu_S$ is static value of intrinsic permeability, e is the width of the plurality of gaps, and p is the pitch.

Claim 42 (New): A magnetic circuit according to claim 38, wherein the resonant frequency $f_r$ is given by relationship:

$$f_r = \sqrt{C\left(1/\mu_s + e/p\right)}$$

in which C is a constant, $\mu_S$ is static value of intrinsic permeability, e is the width of the wall of insulating material, and p is the pitch.

Claim 43 (New): A magnetic circuit according to claim 39, wherein the resonant frequency $f_r$ is given by relationship:

$$f_r = \sqrt{C\left(1/\mu_s + e/p\right)}$$

in which C is a constant, $\mu_S$ is static value of intrinsic permeability, e is the width of the gap, and p is the pitch.

Claim 44 (New): A magnetic circuit according to claim 40, wherein the resonant frequency $f_r$ is given by relationship:

$$f_r = \sqrt{c\left(1/\mu_s + e/p\right)}$$

in which C is a constant, $\mu_S$ is static value of intrinsic permeability, e is the width of the radial gap, and p is the pitch.

Claim 45 (New): A magnetic circuit comprising:

a magnetic layer having a median line and disposed with respect to an induced magnetic field so as to canalize, in the direction of the median line, said magnetic field,

the magnetic layer being composed of a series of portions, two successive portions being separated from each other by a wall of insulating material disposed at a position perpendicular to the median line of the magnetic layer and generating a demagnetizing field in the magnetic layer at the position of said wall,

wherein said magnetic layer is formed by a stack of alternatively magnetic and insulating layers.

Claim 46 (New): A magnetic circuit comprising:

a magnetic layer having a median line and disposed with respect to an induced magnetic field so as to canalize, in the direction of the median line, said magnetic field,

the magnetic layer being composed of a series of portions, two successive portions being separated from each other by a gap disposed at a position perpendicular to the median line of the magnetic layer and generating a demagnetizing field in the magnetic layer at the position of said gap,

wherein said magnetic layer is formed by a stack of alternatively magnetic and insulating layers.